



Michigan Department of State Police

Emergency Management & Homeland Security Division Informational Letter



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TO: Local, District and State Emergency Management Coordinators
SUBJECT: MEDDRUN and CHEMPACK Resource Guide

The following information is being provided to emergency management coordinators on behalf of the Michigan Department of Community Health, Office of Public Health Preparedness.

Please review the attached information from the Department of Community Health Office of Public Health Preparedness which outlines two important programs that will be vital during the early moments of a major mass casualty incident.

The Michigan Emergency Drug Delivery and Resource Utilization Network (MEDDRUN) and CHEMPACK are both programs that will provide emergency pharmaceuticals and medical supplies that may not be readily available during mass casualty events. This could be especially true during terrorism events involving chemical weapons. Both of these resources are currently available to protect the citizens of the State of Michigan during critical events.

The attached document explains the program, outlines deployment information, and provides regional bioterrorism coordinator contacts. If you have questions, please contact your respective bioterrorism coordinator whose contact information is listed on page 10 of the document.

Sincerely,

KRISTE ETUE, CAPTAIN
Deputy State Director of Emergency Management
and Homeland Security

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(077)

Attachment (1):

- Michigan Emergency Drug Delivery and Resource Utilization Network (MEDDRUN) & CHEMPACK Resource Guide

Michigan Emergency Drug Delivery and Resource Utilization Network MEDDRUN & CHEMPACK

Resource Guide

**Michigan Department of Community Health
Office of Public Health Preparedness**

Revised: March 8, 2006

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Introduction

During the early moments of a major mass casualty incident (MCI), the healthcare system will likely be overwhelmed. In such cases, the availability of critical emergency pharmaceuticals and other vital medical supplies may be compromised. This may be particularly true in a terrorist incident; especially one utilizing chemical weapons in which the early use of certain antidotes may be lifesaving. The necessary quantities of emergency pharmaceuticals and medical supplies may not be readily available unless special stockpiles are available. Therefore, the Michigan Emergency Drug Delivery and Resource Utilization Network (MEDDRUN) and CHEMPACK have been created.

Background Information

MEDDRUN

The MEDDRUN program provides standardized caches of medications and supplies strategically located throughout the State of Michigan. These caches are located with Michigan's rotary air, and selected ground, emergency medical services (EMS) agencies to minimize deployment time during an event. MEDDRUN is intended to rapidly deliver these medications and supplies to hospitals and other sites, ideally within one hour of request.

MEDDRUN is not intended to eliminate the need for local hospitals and healthcare systems to prepare for emergencies and to stockpile certain minimum medications and supplies. Nor is MEDDRUN intended to supplant the Strategic National Stockpile (SNS) and other federal and state assets that may be mobilized to sustain long-term operations in a major MCI. Instead, the purpose of MEDDRUN is to bridge the gap between local, state resources and the more extensive SNS and other state and federal medical re-supply systems.

MEDDRUN was implemented by The Michigan Department of Community Health (MDCH) Office of Public Health Preparedness (OPHP) in cooperation with the Regional Medical Bio-Defense Networks, Michigan State Police Emergency Management Division (MSP/EMD), the medical and pharmaceutical communities, rotary air medical services, regional bioterrorism preparedness planners, Michigan Department of Military and Veterans Affairs, the US Department of Veterans Affairs, and others.

Strategic National Stockpile (SNS)

In 1999 Congress charged the Department of Health and Human Services (DHHS) and the Centers for Disease Control and Prevention (CDC) with the establishment of the National Pharmaceutical Stockpile, subsequently renamed the SNS, which is under the jurisdiction of the Department of Homeland Security (DHS). The mission of the SNS is to provide large quantities of essential medical materiel to states and local public health agencies during an emergency and to do so within twelve (12) hours of the federal decision to deploy. This national cache consists of antibiotics, nerve agent (NA) antidotes, antitoxins, life-support medications, IV administration supplies, airway maintenance supplies and medical/surge items.

CHEMPACK

The CDC established CHEMPACK, which is the forward placement of a sustainable resource of Nerve Agent (NA) antidotes throughout the United States where they can be made rapidly available to state and local emergency responders.

A large-scale event involving NA would require immediate pharmaceutical intervention and may require long-term care follow-up. The ability of emergency medical personnel to begin immediate treatment of individuals exposed to NA may directly affect a casualty's ability to survive the exposure. Therefore, the 12-hour response time for the SNS is not adequate to meet the needs of victims of a NA attack.

The CHEMPACK Project makes two types of CHEMPACK containers, or caches, available throughout the state.

- EMS Caches are primarily designed for use by emergency responders at the scene of the event and therefore a larger percentage of the antidotes are packaged in single-use auto-injectors. Additionally, a number of these doses have been modified for pediatric patients.
- Hospital Caches are designed primarily for hospital use and contain more multiuse vials than the EMS caches. This allows medical professionals to better manage/regulate drug dosing during follow-up and long-term care.

Both types of CHEMPACK caches are designed to treat 1,000 NA casualties and are based upon the planning factors developed by CDC, (i.e., 30% of the casualties have a mild NA exposure, 40% a moderate exposure and 30% a severe exposure).

Based on the research conducted by the CDC Michigan received a total of 67 CHEMPACK caches; 42 EMS Caches and 25 Hospital Caches. These were deployed in September 2005.

State and local response agencies must be prepared to mount a swift and effective response to acts of terrorism involving NA, as well as situations involving accidental releases of organophosphates, to minimize potential loss of life. The CHEMPACK Project provides the state of Michigan, in collaboration with the CDC and the U.S. Department of Homeland Security, with a sustainable, supplemental source of pre-positioned nerve agent/organophosphate antidotes and associated pharmaceuticals that will be readily available for use when local supplies become depleted.

SUMMARY

The CHEMPACK and MEDDRUN projects are two components of the Michigan Emergency Preparedness Pharmaceutical Plan (MEPPP), a comprehensive statewide plan for coordinating timely application of pharmaceutical resources in the event of an act of terrorism or large-scale technological emergency/disaster. The MEPPP is a support plan to the all-hazard Michigan Emergency Management Plan (MEMP), which is the state's Basic Plan for responding to any emergency/disaster situation within Michigan.

Contents of MEDDRUN MedPacks

Michigan MedPack Contents

Revised 9/8/04

	Quantity	Use
<u>Chemical</u>		
Mark I Kits	120	Nerve agent and organophosphate pesticide antidote
Atropen 1mg Auto Injector	30	Nerve agent and organophosphate pesticide antidote for children
Midazolam, 10 mg/2 ml	100	Anticonvulsant for nerve agent exposure and general sedative
Amyl Nitrite; 1 per patient	120	Cyanide antidote, inhaled
Sodium Nitrite 300 mg; 1 vial per patient	50	Cyanide antidote, intravenous for 50 patients
Sodium Thiosulfate 12.5 g	50	Cyanide antidote, intravenous for 50 patients
Atropine 1 mg Vial	250	Nerve agent an organophosphate pesticide antidote
Atropen 2 mg Auto Injector	30	Nerve agent and organophosphate pesticide antidote
Atropen 1 mg Auto Injector	30	Nerve agent and organophosphate pesticide antidote
<u>Biological</u>		
Doxycycline 100 mg tabs	5,000	Antibiotic for prophylaxis of 2500 personnel for 24 hours
<u>Supportive Medications</u>		
Albuterol MDI 17 gm	50	Inhaled bronchodilator for chemical weapons and general use
Pocket Spacer for Use with MDI (50/cs)	50	Improves delivery of Albuterol from inhaler
<u>Clinical Support</u>		
Syringes, 3 cc	200	Syringe for injecting atropine and Midazolam
Syringes, 60 cc	200	Syringe for injecting sodium nitrite and sodium Thiosulfate
Alcohol Preps	1,000	General purpose
Triage Tags	1,000	Uniform triage tags for 1000 patients
Ventilator, Disposable	20	Disposable pressure ventilator for 20 patients
Oxygen Manifold	3	Provides 8 oxygen ports from single source for 24 patients
<u>Additional PPE</u>		
N-95 Respirators	500	Respiratory protection for 500 healthcare workers
Non-Latex Exam Gloves - Small	300	General protection
Non-Latex Exam Gloves - Medium	400	General protection
Non-Latex Exam Gloves - Large	400	General protection
Non-Latex Exam Gloves - X-Large	300	General protection
<u>Support Equipment</u>		
Back Board with Straps	1	Transport MedPacks

Contents of CHEMPACK Containers

EMS CHEMPACK Container for 1000 Casualties	
	Quantity
Mark 1 auto-injector	2640
Atropine Sulfate 0.4mg/ml 20ml	100
Pralidoxime 1gm inj 20ml	276
Atropen 0.5 mg	288
Atropen 0.1 mg	288
Diazepam 5mg/ml auto-injector	600
Diazepam 5mg/ml vial, 10ml	100
Sterile water for injection 20 cc Vials	300
Sensaphone® 2050 (<i>monitoring device</i>)	1
Satco B DEA Container (<i>storage container</i>)	1

Hospital CHEMPACK Container for 1000 Casualties	
	Quantity
Mark 1 auto-injector	480
Atropine Sulfate 0.4mg/ml 20ml	900
Pralidoxime 1gm inj 20ml	2760
Atropen 0.5 mg	144
Atropen 0.1 mg	144
Diazepam 5mg/ml auto-injector	150
Diazepam 5mg/ml vial, 10ml	650
Sterile water for injection 20cc vials	2800
Sensaphone® 2050 (<i>monitoring device</i>)	1
Satco B DEA Container (<i>storage container</i>)	1

MEDDRUN/CHEMPACK Request Deployment Schematic

**Biological or
Chemical Event**

NA Antidotes or
existing supplies are
depleting

Requesting agency confers
with appropriate Incident
Command/Medical Control
or Medical Staff and
identifies need to request
MEDDRUN/CHEMPACK
supplies

Request is made to
MEDDRUN/CHEMPACK
Communications agency by
providing the essential elements
of information (EEI)

MEDDRUN/CHEMPACK Communications Agency

Primary Agency: Survival Flight: 877-633-7786
Secondary Agency: Aero Med: 616-391-5330

First Action
Deployment Orders to
selected MEDDRUN Dispatch
and/or CHEMPACK
POC / APOC

Second Action
Contact OPHP POC
Beeper: 517-232-7297

OPHP POC will contact
Requesting Agency to
authenticate request

OPHP POC then contacts
Communications Agency to provide
confirmed or recalled and determines
need for additional resources

OPHP POC Contacts MSP ELOP

OPHP POC Contacts OPHP Director

OPHP POC Contacts Regional MCC

OPHP POC coordinates a
MI-HAN Alert consistent with
guidelines

Notify MCA
regarding
dispatched
transport vehicle

Transportation Agency
notifies transport personnel
and moves desired cache to
designated loading area

If approved, desired cache
is loaded on transport vehicle

Transportation Agency
delivers supplies to
requesting location

Transportation Agency
returns to service

MEDDRUN/CHEMPACK
Communications contact
agency to provide
confirmation or recall
deployment

ELOP notifies appropriate
Emergency Management
Coordinator

Abbreviations

APOC: Alternate Point of Contact
ELOP: East Lansing Operation Center
EOC: Emergency Operations Center
EEI: Essential Elements of Information
MCA: Medical Control Authority
MCC: Medical Coordination Center
MI-HAN: Michigan Health Alert Network
NA: Nerve Agent
POC: Point of Contact
----- Dotted line equals objectives
being accomplished simultaneously

MEDDRUN / CHEMPACK Deployment Overview

Requesting agency identifies need to request MEDDRUN or CHEMPACK supplies.

These will most likely be:

1. On-scene Incident Commander, Hospital Emergency Department, Medical Control Authority or Central Dispatch.
2. Local Public Health or other Public Safety personnel.

MEDDRUN/CHEMPACK Communications Agency

Primary Agency: Survival Flight 877-633-7786

Secondary Agency: Aero Med 616-391-5330

(If communication failure with Survival Flight)

1. Obtain information contained on the Essential Elements of Information (EEI) Form to assist with decision making for best type of resource.
2. Dispatch the appropriate resource.
3. State level points of contact complete the communication mechanisms based on size, type, and impact of event.

OPHP Point of Contact (POC)

- Maintains response to complete all necessary communications at the local and state level (see schematic on page 7).

MEDDRUN Agency

- Dispatch transport vehicle containing MedPack.
- Communicate with transport vehicle and relay information to communications agency.
- Deliver MEDDRUN MedPack(s) to requested location.
- Transportation vehicle returns to service.

CHEMPACK Storage Site

- Pharmacist and security unlock CHEMPACK cage/room.
- Contact pre-arranged transportation (Each region's transportation mechanism may be different depending on resources available. For instance, some regions may use law enforcement agencies, or some may use EMS or other secure transportation. This will be coordinated through the regional bioterrorism initiatives).
- Transport CHEMPACK container to pre-designated loading area.
- Break the seal; individual boxes can be removed from container.
- Load contents into transportation vehicle (pre-designated through regional initiative) to be delivered to other facility or incident site as directed by MEDDRUN/CHEMPACK Communications Agency.
- Each region has developed a transportation plan.

Transferring Component

- Transportation agency must ensure medications are transported from storage to point of use.
- May include Memorandum of Agreement (MOA) based on Regional Operational Plans.
- Incident Commander/Lead Medical Personnel accept resources and manage distribution.

Elements of Essential Information (EEI) Report

Below is the information necessary to provide to the Communications Agency upon requesting either the MEDDRUN or CHEMPACK resources.

Essential Elements of Information Report			
1. Name, Position, and Contact Information for the Individual Requesting Deployment of the CHEMPACK or MEDDRUN Cache?	Name: _____ Position/Title: _____ Telephone/Other: _____ _____		
2. Name of Physician / Officer in Charge or Medical Management (if different from "1." above.)	Name: _____ Position/Title: _____ Employer: _____ Telephone/Other: _____		
3. Location of Incident	Jurisdiction Name: _____ Closest Intersection: _____ (or) Name of Site: _____ City: _____ County: _____		
4. Estimated Number of Casualties	None 1 2-3 4-5	5-10 10-20 20-40 40-100	100-300 300-500 500-1000 1000+
5. Symptoms of Casualties if NA suspected describe:			
6. Local Supplies of Antidotes and Pharmaceuticals are Exhausted, multiple lives remain at risk, and CHEMPACK or MEDDRUN supplies are needed to save lives?	Yes _____ No _____		

Regional Bioterrorism Coordinators Contact Information – 3/8/06

Region 1:

Dan Young
Region 1 BT. Coordinator
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Region 2S:

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Region 6:

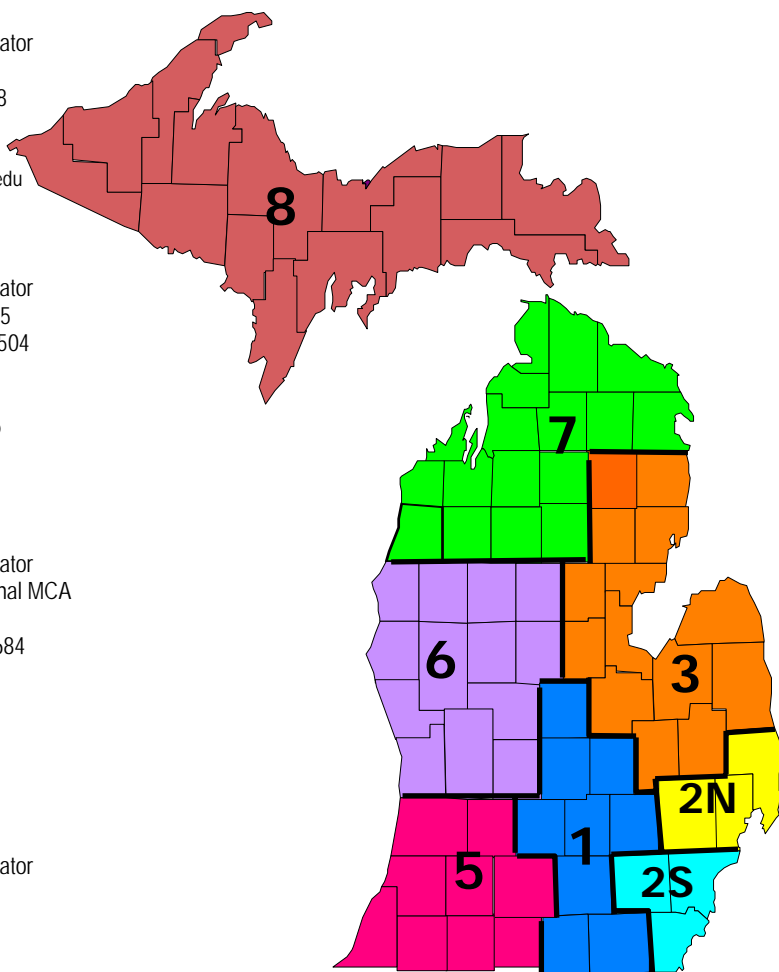
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asundberg@mgh.org



MDCH 24-Hour Phone Number: 517-335-9030

Glossary of Acronyms

APOC – Alternate Point of Contact
BT - Bioterrorism
CDC – Centers for Disease Control and Prevention
CSS – CHEMPACK Storage Site
DHHS – Department of Health and Human Services
EEI – Essential Elements of Information
ELOP – East Lansing Operations Center
EMD – Emergency Management Division
EMS – Emergency Medical Services
EOC – Emergency Operations Center
JRCAB – Joint Readiness Clinical Advisory Board
MA – MEDDRUN Agency
MCA – Medical Control Authority
MCC – Medical Coordination Center
MCI – Mass Casualty Incident
MDCH – Michigan Department of Community Health
MEDDRUN – Michigan Emergency Drug Delivery and Resource Utilization Network
MEMP – Michigan Emergency Management Plan
MEPPP – Michigan Emergency Preparedness Pharmaceutical Plan
MI-HAN – Michigan Health Alert Network
MOA – Memorandum of Agreement
MSP – Michigan State Police
NA – Nerve Agent
NBC CREST - The Casualty and Resource Estimation Support Tool for Nuclear, Biological and Chemical Weapons
OPHP – Office of Public Health Preparedness
POC – Point of Contact
SNS – Strategic National Stockpile
WMD – Weapons of Mass Destruction